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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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THE DIRECTV GROUP INC
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EXAMINER

NALEVANKO, CHRISTOPHER R

ART UNIT PAPER NUMBER

2611

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4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/536,101

Applicant(s)

FINSETH ET AL.

Examiner

Christopher R Nalevanko

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 19 and 20 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Ito et al.

Regarding Claim 19, Ito shows a receiver for receiving content (page 1 section 0010, page 2 sections 0031-0033), means for inserting receiver identification data into data representing the content (page 2 sections 0035-0039), and means for generating a display of images based upon the data representing the content and the receiver identification data (page 2 sections 0038-0039).

Regarding Claim 20, Ito shows that the receiver identification data is the receiver ID number (page 1 section 0013).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. Claims 1, 2, 6-10, 14-18, 24-30, and 34-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al in further view of Kimura et al.

Regarding Claim 1, Ito shows a receiver for receiving content (page 1 section 0010, page 2 sections 0031-0033), means for inserting receiver identification data into data representing the content (page 2 sections 0035-0039), and means for generating a display of images based upon the data representing the content and the receiver identification data (page 2 sections 0038-0039). Although Ito shows using this system for video, Ito fails to specifically state that the system is used in the broadcast television environment. Kimura shows a very similar ID inserting system that is used in the broadcast television environment (col. 2 lines 5-45, col. 5 lines 20-67). Therefore, it would have been obvious to one of ordinary skill in the art to modify the system of Ito for television content so that the system of inserting receiver data could be used to catch copyright violators in the TV environment.

Regarding Claim 2, Ito shows that the receiver identification data is the receiver ID number (page 1 section 0013).

Regarding Claim 6, Ito shows modify the saturation data (page 2 section 0038).

Regarding Claim 7, Ito shows that the content can have multiple frames and the receiver identification data is inserted into multiple frames (page 3 section 0047).

Regarding Claim 8, Ito shows that receiver ID information is inserted in all images before they are displayed. Furthermore, Kimura shows inserting ID information into television programming content. Ito and Kimura fail to show displaying program guide data. Official Notice is given that it is well known and expected in the art to

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display program guide data on a screen. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ito and Kimura with the ability to show EPG data so that the viewer could interactively view upcoming programs and shows. Furthermore, since all frames of the Ito system are embedded with the receiver ID data before display, it is inherent that the EPG frames would contain the receiver data as well.

Regarding Claim 9, the limitations of the method claim have been discussed with regards to the system claim of Claim 1.

Regarding Claim 10, all of the limitations of the claim have been discussed with regards to Claim 2.

Regarding Claim 14, all of the limitations of the claim have been discussed with regards to Claim 6.

Regarding Claim 15, all of the limitations of the claim have been discussed with regards to Claim 7.

Regarding Claim 16, Ito shows that receiver ID information is inserted in all images before they are displayed. Furthermore, Kimura shows inserting ID information into television programming content. Ito and Kimura fail to show displaying program guide data. Official Notice is given that it is well known and expected in the art to display program guide data on a screen. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ito and Kimura with the ability to show EPG data so that the viewer could interactively view upcoming programs and shows. Furthermore, since all frames of the Ito system are

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embedded with the receiver ID data before display, it is inherent that the EPG frames would contain the receiver data as well.

Regarding Claim 17, Ito shows a receiver for receiving video content and inserting receiver identification data into generated images in a manner that is undetectable to the casual observer (page 2 sections 0034-0035). Ito further shows a controller, or ID imprinter, for retrieving identification data and changing values of the pixel data to values of the identification data, the controller thereby embedding the id data into the frame (page 2 sections 0038-0039) and a display generator for generating a display of the first image (page 2 section 0037, see fig. 3). Also, Ito shows an image decoder, which acts as a storage, or buffer, prior to imprinting the first image with id data (see fig. 3, page 2 section 0039). Finally, Ito shows an "ID Holder," which acts as memory, or storage, for the receiver's unique ID (see fig. 3). Ito fails to show a tuner or that television content is received. Kimura shows that television content is received and the use of television tuning circuitry (col. 5 lines 25-67, col. 6 lines 1-44, figs. 3 and 5). Therefore, it would have been obvious to one of ordinary skill in the art to modify the system of Ito for television content so that the system of inserting receiver data could be used to catch copyright violators in the TV environment.

Regarding Claim 18, the limitations of the method claim have been discussed with regards to the system claim of Claim 17.

Regarding Claim 24, the limitations of the claim have been discussed with regards to Claim 6.

Regarding Claim 25, the limitations of the claim have been discussed with regards to Claim 7.

Regarding Claim 26, Ito shows that receiver ID information is inserted in all images before they are displayed. Furthermore, Kimura shows inserting ID information into television programming content. Ito and Kimura fail to show displaying program guide data. Official Notice is given that it is well known and expected in the art to display program guide data on a screen. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ito and Kimura with the ability to show EPG data so that the viewer could interactively view upcoming programs and shows. Furthermore, since all frames of the Ito system are embedded with the receiver ID data before display, it is inherent that the EPG frames would contain the receiver data as well.

Regarding Claim 27, the limitations of the claim have been discussed with regards to Claim 1.

Regarding Claim 28, Ito shows substituting receiver identification data for a subset of the data representing the content (page 2 sections 0038-0039).

Regarding Claim 29, Ito shows presenting the modified content to the user on a presentation device (page 2 sections 0038-0039).

Regarding Claim 30, Ito shows that the receiver identification data is the receiver ID number (page 1 section 0013).

Regarding Claim 34, Ito shows modify the saturation data (page 2 section 0038).

Regarding Claim 35, Ito shows that the content can have multiple frames and the receiver identification data is inserted into multiple frames (page 3 section 0047).

Regarding Claim 36, Ito shows that receiver ID information is inserted in all images before they are displayed. Furthermore, Kimura shows inserting ID information into television programming content. Ito and Kimura fail to show displaying program guide data. Official Notice is given that it is well known and expected in the art to display program guide data on a screen. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ito and Kimura with the ability to show EPG data so that the viewer could interactively view upcoming programs and shows. Furthermore, since all frames of the Ito system are embedded with the receiver ID data before display, it is inherent that the EPG frames would contain the receiver data as well.

Regarding Claim 37, Ito shows a receiver for receiving video content. Ito further shows a controller, or ID imprinter, for modifying at least a portion of the data representing program content according to receiver identification data (page 2 sections 0038-0039). Also, Ito shows an image decoder, which acts as a storage, or memory, prior to imprinting the first image with id data (see fig. 3, page 2 section 0039). Ito fails to show a tuner or that television content is received. Kimura shows that television content is received and the use of television tuning circuitry (col. 5 lines 25-67, col. 6 lines 1-44, figs. 3 and 5). Therefore, it would have been obvious to one of ordinary skill in the art to modify the system of Ito for television content so that the system of inserting receiver data could be used to catch copyright violators in the TV environment.

Regarding Claim 38, Ito shows that the controller modifies at least a portion of the pixel data according to the receiver identification data (page 2 section 0038-0039, page 3 sections 0043-0044, 0047-0050).

Regarding Claim 39, Ito shows an "ID Holder," which acts as memory, or storage, for the receiver's unique ID (see fig. 3).

Regarding Claim 40, Ito shows that the receiver identification data is the receiver ID number (page 1 section 0013).

Regarding Claim 44, Ito shows logic for computing a plurality of order-based analysis functions for records stored in a computer system comprising receiving video data (page 1 section 0010, page 2 sections 0031-0033), modifying the data to include receiver ID data (page 2 sections 0035-0039), and providing the data to a presentation device (page 2 sections 0038-0039). Although Ito shows using this system for video, Ito fails to specifically state that the system is used in the broadcast television environment. Kimura shows a very similar ID inserting system that is used in the broadcast television environment for program data (col. 2 lines 5-45, col. 5 lines 20-67). Therefore, it would have been obvious to one of ordinary skill in the art to modify the system of Ito for television content and program data so that the system of inserting receiver data could be used to catch copyright violators in the TV environment.

3. Claims 3-5, 11-13, 31-33, and 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al in further view of Kimura et al and Narayanaswami et al.

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Regarding Claim 3, Ito and Kimura fail to show embedding date information in the receiver identification data. Narayanaswami shows embedding date information in a digital watermark of an image (page 1 sections 0004-0005). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ito and Kimura with the ability to insert date data so that one could identify when an image was displayed.

Regarding Claim 4, Ito and Kimura fail to show embedding time information in the receiver identification data. Narayanaswami shows embedding time information in a digital watermark of an image (page 1 sections 0004-0005). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ito and Kimura with the ability to insert date data so that one could identify when an image was displayed.

Regarding Claim 5, Ito and Kimura fail to show using a removable access card for generating ID data. Narayanaswami shows using a removable access card for generating ID data (page 3 section 0036). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ito and Kimura with the ability to use a removable access card so that users could easily be changed by swiping their individual cards.

Ito, Kimura, and Narayanaswami fail to show using billing information from an access card. Official Notice is taken that it is well known and expected in the art to use billing information from an access card. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ito,

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Kimura, and Narayanaswami with the ability to use billing information on a card so that the system would be able to embed a variety of receiver data into the watermark.

Regarding Claim 11, all of the limitations of the claim have been discussed with regards to Claim 3.

Regarding Claim 12, all of the limitations of the claim have been discussed with regards to Claim 4.

Regarding Claim 13, all of the limitations of the claim have been discussed with regards to Claim 5.

Regarding Claim 31, all of the limitations of the claim have been discussed with regards to Claim 3.

Regarding Claim 32, all of the limitations of the claim have been discussed with regards to Claim 4.

Regarding Claim 33, all of the limitations of the claim have been discussed with regards to Claim 5.

Regarding Claim 41, all of the limitations of the claim have been discussed with regards to Claim 3.

Regarding Claim 42, all of the limitations of the claim have been discussed with regards to Claim 4.

Regarding Claim 43, all of the limitations of the claim have been discussed with regards to Claim 5.

4. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al in further view of Narayanaswami et al

Regarding Claim 21, Ito fails to show embedding date information in the receiver identification data. Narayanaswami shows embedding date information in a digital watermark of an image (page 1 sections 0004-0005). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ito with the ability to insert date data so that one could identify when an image was displayed.

Regarding Claim 22, Ito fails to show embedding time information in the receiver identification data. Narayanaswami shows embedding time information in a digital watermark of an image (page 1 sections 0004-0005). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ito with the ability to insert date data so that one could identify when an image was displayed.

Regarding Claim 23, Ito fails to show using a removable access card for generating ID data. Narayanaswami shows using a removable access card for generating ID data (page 3 section 0036). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ito with the ability to use a removable access card so that users could easily be changed by swiping their individual cards.

Ito and Narayanaswami fail to show using billing information from an access card. Official Notice is taken that it is well known and expected in the art to use billing information from an access card. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ito,

Kimura, and Narayanaswami with the ability to use billing information on a card so that the system would be able to embed a variety of receiver data into the watermark.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Linnartz U.S. Patent No. 6,714,659 discloses watermarking an information signal.

Gruse et al U.S. Patent No. 6,389,538 discloses a system for tracking end-user electronic content usage.

Gennaro et al U.S. Patent No. 6,311,271 discloses how to sign digital streams.

Walker et al U.S. Patent No. 6,263,438 discloses a method and apparatus for secure document timestamping.

Conover et al U.S. Patent No. 6,373,960 discloses embedding watermarks into compressed video data.

Epstein U.S. Patent Application Publication No. 2003/0159043 discloses a method and apparatus for use of a watermark and a receiver dependent reference for the purpose of copy protection.

Yoshiura et al U.S. Patent Application No. 2002/0095579 discloses a digital data authentication method.

Leighton et al U.S. Patent No. 5,519,778 discloses a method for enabling users of a cryptosystem to generate and use a private pair key for enciphering communications between the users.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R Nalevanko whose telephone number is 703-305-8093. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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